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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/008,489	11/13/2001	Chander P. Chawla	214453	5624
23460	7590	04/16/2004	EXAMINER	
LEYDIG VOIT & MAYER, LTD TWO PRUDENTIAL PLAZA, SUITE 4900 180 NORTH STETSON AVENUE CHICAGO, IL 60601-6780			JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER
			1773	

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

AS

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/008,489	CHAWLA ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Monique R Jackson	1773	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 January 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/02</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Upon reconsideration, the restriction requirement as recited in the prior office action has been withdrawn. In terms of the election of species requirement, the Examiner notes Applicant's admission that the species are structurally similar and not patentably distinct from one another and hence the Examiner has withdrawn the species requirement noting that the disclosed species will be considered obvious variants of one another.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-6, 11, 12, and 15-44 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 99 50368A (WO'368.) WO'368 teaches a radiation-curable adhesive composition and disc lacquer for a digital versatile disc (DVD) that includes at least two substrates bonded together by the adhesive, one or both of which are a thin reflective metal layer such as aluminum wherein the adhesive is required to bond strongly to the aluminized surfaces of the substrates, cure well and not corrode the aluminum surface (Abstract; Page 9.) The adhesive comprises a) UV or radiation curable acrylate component that undergoes polymerization (*cationic*) when exposed to radiation, b) a non acrylate functional reactive diluent comprising a component capable of radical

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polymerization, c) at least one acrylate functional reactive diluent, d) about 0.5wt% to about 10wt% of at least one radical forming sulfur compound, preferably a thiol compound and e) about 0.1wt% to 15wt% of one or more photoinitiators such as mercaptobenzothiazoles (*formula 2*), mercaptobenzooxazoles (*formula 1*) or hexaryl bisimidazole (Page 6, line 25-Page 7, line 8; Page 18, lines 25-28; Page 21, lines 8-28; Page 22, lines 6-26.) The adhesive may further comprise conventional additives including UV absorbers such as benzotriazole (*formula 10*) (Page 23, line 2.) WO'368 further teach that the cured adhesive exhibits an elongation of at least 20%, a shrinkage upon cure of less than or equal to 10%, and a shear strength of about 10 to about 100 lbs, wherein the DVD substrates adhered with the cured adhesive are stable under exposure to about 85C at about 95%RH for at least 250 hours and more preferably at least 2,000 hours (Page 24, lines 1-13.) With respect to Claims 26-28, the Examiner takes the position that the corrosion resistance properties of the invention taught by WO'368 would be the same considering the products are produced by the same materials and method.

4. Claims 1-6, 11, 12, and 15-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha et al (USPN 6,472,451.) Ha et al teach a radiation-curable adhesive composition and disc lacquer for a digital versatile disc (DVD) that includes at least two substrates bonded together by the adhesive, one or both of which are a thin reflective metal layer such as aluminum wherein the adhesive is required to bond strongly to the aluminized surfaces of the substrates, cure well and not corrode the aluminum surface (Abstract; Col. 5, lines 35-47.) The adhesive comprises a) UV or radiation curable acrylate component that undergoes polymerization (*cationic*) when exposed to radiation, b) a non acrylate functional reactive diluent comprising a component capable of radical polymerization, c) at least one acrylate functional reactive diluent, d) about 0.5wt% to

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about 10wt% of at least one radical forming sulfur compound, preferably a thiol compound and  
e) about 0.1wt% to 15wt% of one or more photoinitiators such as mercaptobenzothiazoles  
(*formula 2*), mercaptobenzooxazoles (*formula 1*) or hexaryl bisimidazole (Col. 3, lines 27-50;  
Col. 8, lines 35-37; Col. 10, lines 1-23) The adhesive may further comprise conventional  
additives including UV absorbers such as benzotriazole (*formula 10*) (Col. 10, line 22.) Ha et al  
further teach that the cured adhesive exhibits an elongation of at least 20%, a shrinkage upon  
cure of less than or equal to 10%, and a shear strength of about 10 to about 100 lbs, wherein the  
DVD substrates adhered with the cured adhesive are stable under exposure to about 85C at about  
95%RH for at least 250 hours and more preferably at least 2,000 hours (Col. 10, lines 51-62.)  
With respect to Claims 26-28, the Examiner takes the position that the corrosion resistance  
properties of the invention taught by WO'368 would be the same considering the products are  
produced by the same materials and method.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all  
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-10 and 13-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
Ha et al or WO'368. The teachings of Ha et al and WO'368 are discussed above. Ha et al and  
WO'368 do not specifically teach the compounds as instantly claimed in 7-10 and 13-14  
however it would have been obvious to one having ordinary skill in the art at the time of the

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invention to utilize the instantly claimed compounds considering they are structurally and functionally equivalent to those compounds taught by Ha et al or WO'368.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 571-272-1508.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 571-272-1516. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Monique R. Jackson  
Primary Examiner  
Technology Center 1700  
April 14, 2004